

REMARKS

Claim 2 has been canceled and the content incorporated into claim 1 so that the second dopant is necessarily located in the light-emitting layer. Claim 17 has been amended to change the formula reference from --4-- to --4'--, consistent with page 4 of the specification. Claims 12 and 16 have been amended as described below.

The drawings stand objected to because the drawing is not labeled. The Examiner suggests that the Drawing be labeled "Figure 1", and suggests that "The Figure" in the specification under the "Brief Description of Drawings" section be changed to "Figure 1". According to 37 CFR 1.84 and MPEP 608.02 (u)(1) "Where only a single view is used in an application to illustrate the invention, it must not be numbered and the abbreviation "FIG." must not appear." It appears that the present drawing and specification are in compliance with this requirement.

The Examiner has suggested that the status of all U.S. applications listed in the disclosure be updated by amendment. This has been done by reference to a single publication in place of the two related applications originally referred to.

Claim 12 stands objected to because it comprises several sentences within the claim, which is improper claim format. The claim has been amended to eliminate multiple periods and sentence capitals, and to eliminate references to preferred embodiments.

Claim 16 stands rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention because the claim refers to "Inv-1a, Inv-6a, or Inv-8a"; however, compounds according to these names are not set forth previously in a parent claim. Applicants have resolved the Examiner's concerns by inserting the structures in the claim.

Claims 1-10, 12, 14, and 17-22 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Tsujioka et al. (WO 02/100977) = US 2005/0079381 (US'381). The effective prior art date for the cited WO02/100977 reference is December 19, 2002, which is the date of its publication. Since the WO was published in Japanese, it is not effective under 35 USC 102(e) as a

reference in the USA until either it is published (102(a) or (b)) or is actually filed in the USA (102(e)). See MPEP Section 2136.03. It is believed that the inventors of the present invention completed a reduction to practice or were diligent in doing so following their conception from a time prior to December 19, 2002, as evidenced by the enclosed Declaration Under Rule 131.

Exhibit A shows the electroluminescent device sample preparation request dated prior to September 19, 2002 (redacted Item 1). Exhibit B shows in more detail that an actual reduction to practice was completed prior to September 19, 2002 (redacted Item 2) using an AlQ₃ host, quinacridone emitter, and a naphthalene stabilizer. Exhibit C shows the stability data of luminance fade and drive voltage increase as a function of time. Exhibit D is a numerical representation for Samples B and C of the graphical data on Exhibit C dated prior to September 19, 2002 (redacted Item 3). It is believed that the Tsujioka et al. reference is therefore not prior art citable against this application.

Even if WO '977 were considered to be prior art, it does not suggest the present invention. According to the Examiner,

WO '977 discloses electroluminescent devices comprising a luminescent layer comprised of a host and two dopants (see abstract). WO '977 discloses Alq as a host material (see page 69, compound 24 and Table on page 104). WO '977 further teaches dopant "GtBuPN", which is the same as applicant's Inv-1b (see page 45, compounds A4 and example 1, Table 1, page 73). Also, coumarin type derivatives are taught as dopants (see pages 71 and 72). Although WO '977 does not appear to set forth an example with all three of Alq₃, DtBuPN, and a coumarin derivative, it would have been obvious to one of ordinary skill in the art to have made a device comprising these three components, because WO '977 teaches all of these components for the luminescent layer. The table on page 104 shows the dopants are present in the luminescent layer in amounts of 2% and 5% per instant claims 4 and 5. Furthermore, the teaching of 2% in the example renders obvious 1% as set forth in claim 7, because one of ordinary skill in the art at the time of the invention would have expected 2% and 1% to render similar results absent evidence otherwise. Because WO '977 teaches the same components as set forth in the claims, the emission of the WO '977 OLED is deemed to be within the range of values set forth in the claims.

The present invention is based on a light-emitting layer emitting green light and containing (a) a host with the largest bandgap e.g. Alq₃, (b) a stabilizer with an intermediate bandgap e.g. Inv-1b; and (c) a green emitter

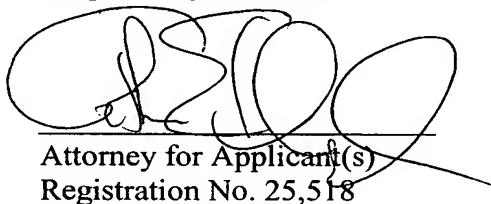
(>570nm) with the lowest bandgap e.g, Inv-8a, the device exhibiting an improved stability or operating life.

In contrast, the WO reference appears directed to improving the luminance and luminance efficiency of red and orange color (See US'381 [0012]) so they are on a par with the blue and green. A rubrene derivative is suggested for this purpose.

Upon finding allowance of the elected species, Applicants hereby request a rejoinder of the species of the withdrawn claims

In view of the foregoing amendments, Declaration and remarks, the Examiner is respectfully requested to withdraw the outstanding rejection and to pass the subject application to Allowance.

Respectfully submitted,



Attorney for Applicant(s)
Registration No. 25,518

Arthur E. Kluegel/dlm
Rochester, NY 14650
Telephone: 585-477-2625
Facsimile: 585-477-1148

Enc. Declaration of Lelia Cosimbescu

If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.